TyrePal TPMS OE Monitor Kit

TC215/OEK

User manual

TyrePal
A WSL COMPANY
TYRE PRESSURE MONITORING SYSTEMS

Innovative safety solutions for your peace of mind

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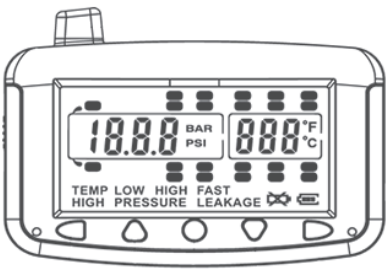
1. INTRODUCTION

This system is designed to monitor the pressure and temperature of wheels and tyres that have been fitted with TyrePal TPMS internal sensors. Additional sensors can be purchased to monitor spare wheels, or the tyres on the towing car.

This pack contains the monitor set comprising the following components together with this user manual:



1 x Monitor

1 x Articulated suction mount

1 x Charging lead

The system continuously monitors tyre pressure and temperature while the caravan is in motion and gives distinct alerts in the event of:

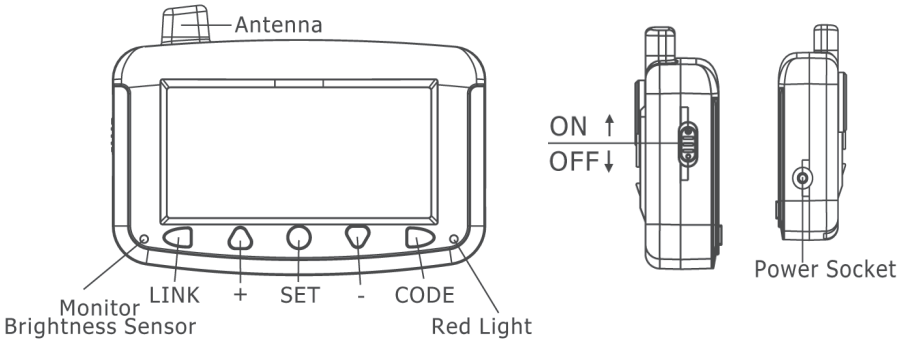
- Rapid pressure loss
- Low tyre pressure
- High tyre pressure
- High tyre temperature

The TC215 system can monitor up to 22 tyres on a car and trailer, but once the sensors are registered to the monitor, it only displays the wheel positions where sensors are registered.

2. IMPORTANT SAFETY NOTE

The system does not replace the need to carry out regular checks on the condition, age and wear of the tyres. It is your responsibility to ensure that the system is working properly in your particular vehicle, and is properly maintained.

3. MONITOR LAYOUT AND CONTROLS



Tyre position icon

Monitor battery icon (fully charged) (requires charging)

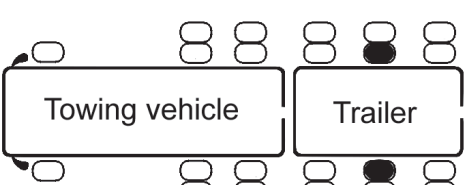
Sensor low battery icon (replace sensor battery or replace internal sensor)

4. SETTING UP

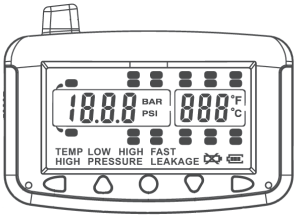
Tyre sensors must be registered to the monitor before use.

If the caravan or trailer has been supplied as 'TyrePal TPMS ready', internal sensors are pre-fitted inside the tyres. The system can also monitor the caravan spare tyre or the tyres on the towing vehicle, if additional sensors are purchased. These external sensors simply screw on to the tyre valve in place of the normal valve caps.

The sensors can be registered to any of the 22 possible positions shown on the display. For a single axle caravan, we recommend using the caravan wheel positions as indicated.



4.1 Switch on the monitor



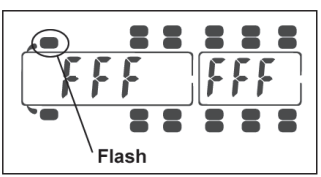
The monitor is powered from an internal rechargeable battery that is normally supplied with some charge.

If the display does not appear, connect it to the vehicle power supply (12V to 24V) to charge the battery. It is not harmed by a partial charge.

4.2 Register the sensors

These instructions refer to pre-fitted internal sensors (TyrePal TPMS Ready wheels). If you have additional external sensors for the tow car or for spare wheels, please see the separate instructions for registering them.

1. In standby mode, press and hold the **CODE** button for 3 seconds. Release it after the beep to enter coding mode.



2. The display shows one tyre icon flashing and a series of numbers and letters which are the ID of the sensor registered to that tyre position. If no sensor is registered to that position, the display will be FFF FFF .
3. Press the **+** or **–** button to scroll through the tyre positions and select the desired tyre position. Place the monitor close to the tyre valve and press the **CODE** button briefly once more, but do not hold it down. The **LF** icon flashes and the red light shows on the monitor.
4. On receiving the code, the monitor gives a long beep and the tyre position is stored together with the sensor ID. The tyre icon continues to flash after the code is received.
5. If the monitor does not receive the code within 6 seconds, an error message **ERR** is displayed, a double beep is given and the red light goes out. Move the monitor closer to the tyre valve and repeat steps 3 and 4.
6. Press **+** or **–** buttons to select the other tyre positions and repeat for all the internal sensors that are to be registered.
7. When all sensors are registered, press and hold the **CODE** button to exit. If you don't compete this step, the registrations are not saved.

If you need to delete a setting, use the **+** or **–** buttons to select the tyre position then press and hold the **SET** button for three seconds. A double beep confirms the ID has been deleted.

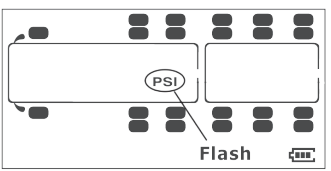
Note: If a sensor is coded twice to the same monitor, the previous setting will be deleted automatically.

4.3 Set units of pressure and alert levels

Pressure units can be set to display in psi or bar, and temperature in °C or ˚F.

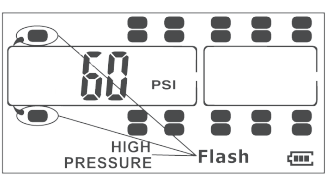
Pressure alert levels are set individually for each of the three axles on the towing vehicle while the trailer settings apply to all axles on the trailer. We recommend that the high pressure alert is set at 20% above the manufacturer's recommended pressure, and the low alert 15% below. The high temperature alert level applies to all tyres. The factory setting of 70°C is the minimum and is suitable for most applications.

1. In standby mode, press and hold the **SET** button for 3 seconds. Release after the beep. Press the **SET** button repeatedly to scroll through the different settings and press the **+** or **–** buttons to adjust the setting as follows:



2. **Pressure units:** while the PSI or BAR icon is flashing, press the **+** or **–** button to select the desired units. Then press **SET** to move on to set temperature units.

3. **Temperature units**: while the °C or ˚F is flashing, press the **+** or **–** buttons to select and press **SET** again to move on to set the high pressure alert level for the first axle.



4. **First axle pressure alert levels:** Press + or – to adjust the high pressure setting, then press **SET** to move on to set the low pressure alert for this axle. If a particular axle is not being monitored, simply accept the default setting and press **SET** to move on to the next axle.

Note that the system will not allow the high pressure alert to be less than the low pressure alert level. The factory set low pressure level is set to 30psi, so if you want the high pressure alert level below 30psi, you must set the low pressure alert levels first, then cycle though again to set the high pressure alerts.

5. Continue to cycle through high and low pressure settings for all the axles.

6. **High temperature alert for all wheels:** Press + or – to adjust the setting as required.

7. Press and hold the **SET** button for three seconds to save the settings and exit the settings mode.

The alert levels can be adjusted at any time using this procedure, for example if different pressures are required for the car when not towing a trailer. The new settings take immediate effect.

4.4 Install the monitor

Clip the monitor to the holder, moisten the suction pad and press it to the windscreen. Lower the lever to secure the pad to the windscreen. To remove it, lift the lever to break the suction.

4.5 Connect the power

Connect the monitor to the vehicle power supply (12V or 24V) via the power connector to charge the internal battery. A full charge will last for about 30 days at two hours driving per day. The battery is not harmed by partial charging.

5. Operation

The monitor has a built in motion sensor that shuts it down into a sleep mode after about ten minutes of no movement so it does not normally need to be turned off. Any vibration such as opening the vehicle door wakes it up again. If the vehicle is to be unused for some time, we recommend turning the monitor off to prevent battery drain.

In normal operation the monitor continuously scrolls through and displays the pressure and temperature of the tyres one by one. You can manually scroll through to any particular tyre by using the + or - buttons. The system is accurate to ±1.5psi (0.1bar), so a difference of one or two psi between the tyres can safely be ignored.

The sensors check the pressure and temperature every few seconds while the wheels are turning. If the pressure is falling, data is transmitted to the monitor immediately, but if the pressure is steady, data is transmitted only every five minutes. This is to reduce power consumption and extend the life of the sensor batteries.

A backlight turns on automatically when it gets dark if the vehicle is in motion. It turns off when it is light or when the monitor is in sleep mode. Press any button to turn the backlight on manually. To turn it off, press and hold the **+** button for 3 seconds.

5.1 Sensor sleep mode

The sensors also have a sleep mode, and when the vehicle has been stationary for several minutes, they stop transmitting to save battery power. If the monitor is awake at this time, it will continue to display the latest received data for a short time.

Please note that it may take a few minutes of driving for the monitor to receive signals from all the sensors when it first wakes up.

If data is not being received from a particular sensor, the display will go blank for that position. This can be

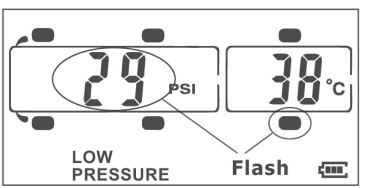
caused by temporary interference from surrounding radio signals and will normally correct itself within a few minutes of driving.

If a signal is not received from a sensor for a period of 60 minutes, the display remains blank for that position and the monitor chirps briefly to warn you that the tyre is not being monitored.

5.2 Alerts

If there is a leak or if any tyre is outside the pre-defined values, it gives an alert:

- An audible alarm
- A flashing red light
- A flashing tyre icon that identifies the tyre
- A description of the problem



Press any button to switch the alarm off. The red light will continue to flash until the problem is corrected.

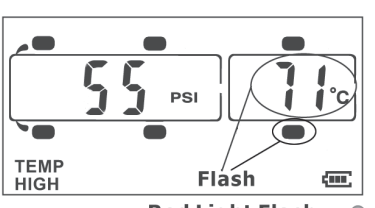
The following messages may appear:

HIGH PRESSURE, LOW PRESSURE, HIGH TEMP, FAST LEAKAGE

The **FAST LEAKAGE** alert is a serious situation that could rapidly affect the stability of the vehicle. If this alert appears, pull over and investigate immediately.

The **HIGH TEMPERATURE** alert shows that the tyre is overheating.

If not corrected, this can cause permanent damage to the sidewall of the tyre and will potentially lead to a blowout or a fire.



Monitor battery alert:

When the monitor battery needs charging, the monitor battery icon changes from full to part full. Connect the monitor to the vehicle power supply and the icon becomes animated while charging.

Sensor battery alert:

When a sensor or sensor battery needs replacing, the low sensor battery icon is shown, and the appropriate tyre icon flashes.

Replace sensor or sensor battery

The internal sensors themselves are sealed units with internal batteries which cannot be replaced. They have a life of five years or more, depending on usage and when the battery is exhausted, the sensor must be replaced.

External sensors have replaceable batteries with a life of up to two years.

5.3 Connecting and disconnecting a trailer

When the caravan is not connected to the vehicle, press the **LINK** and **–** buttons at the same time. Trailer monitoring stops and the trailer tyre icons are removed from the display. When the trailer is reconnected, press **LINK** and **+** buttons to display the trailer.

If you drive away from the trailer without unlinking the caravan, the display will continue to show the last measured trailer tyre data for a period of time. After about 60 minutes it will stop displaying data for the trailer tyres and will give a short beep each time the trailer tyre position is accessed.

6. OPTIONAL EQUIPMENT

6.1 Sensors for tow car and spare tyre

The system is compatible with different types of TyrePal sensors, so additional sensors can be fitted to the car wheels if required. These can either be internal sensors fitted inside the tyres, similar to the ones on the trailer, or external sensors that screw onto the tyre valves without removing the tyres.

6.1 Smart Transceiver

If the trailer is being towed by a large vehicle, with the distance from the rear wheels of the trailer to the monitor greater than about 8 metres, we recommend the use of a TyrePal Smart Transceiver to increase the range of the sensors and improve the stability of the system. This is not normally required when towing by a normal passenger car or SUV.

The Smart Relay can either be used as a signal repeater to boost sensor signals from a single trailer, or in a fleet application, it can simplify exchanging trailers by storing the trailer settings. In this case, one is fitted to each trailer.

7. TROUBLESHOOTING & ADDITIONAL INFORMATION

Additional information about the system, including troubleshooting and advice on managing tyre pressures is provided on the TyrePal web site, www.tyrepal.co.uk, where it is regularly updated.

8. SPARES AND WARRANTY

Spare parts including replacement sensors are available to purchase from the TyrePal web site.

Please register your guarantee by completing details on our web site.

The system is warranted to be free from manufacturing defects and is guaranteed for a period of twelve months from date of purchase. There are no user-serviceable parts inside the monitor and if internal parts have been tampered with, the warranty may be void. The warranty does not affect your statutory rights.

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